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EXAMINER	
BUEKER, RICHARD R	
ART UNIT	**PAPER NUMBER**
1763	

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Please find below and/or attached an Office communication concerning this application or proceeding.

8

Office Action Summary	Application No.	Applicant(s)	
	10/617,765	YAMAZAKI ET AL.	
	Examiner	**Art Unit**	
	Richard Bueker	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5 and 14-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5 and 14-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Claims 1-5 and 14-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In each of the independent claims 1, 14, 19, 24 and 31, in the phrase "the first processing chamber is capable of generating a plasma for performing dry etching a portion of the layer", the phrase "the layer" is vague, indefinite and lacks proper antecedent basis, because in each claim, two different layers are described prior to the recitation of "the layer", and therefore it is unclear which layer is intended to be referred to by the phrase "the layer".

The following grammatical or typographical errors should be corrected: In claim 1, line 30, claim 14, line 16, and claim 24, line 17, "each of substrates" should be changed to "each of said substrates". In claim 19, line 7, "a film second" should be changed to "a second film". In claim 19, lines 16 and 17, and in claim 31, lines 17 and 18, "each of substrate holders" should be changed to "each of said substrate holders".

Claims 14, 15, 18, 19, 20, 23, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219). Yamazaki I (see Fig. 2) discloses an apparatus for processing a substrate comprising a transporting chamber 3; a spin coating chamber 108 that is coupled to the transporting chamber 3 through a loading chamber 201; and a second film formation chamber (110 or 111) which is a vacuum evaporation coating chamber and therefore comprises an evaporation source holder, and wherein chamber 110 or 111 is coupled to the transporting chamber 103. Regarding the use of a vacuum

evaporation coating chamber, it is also noted that Yamazaki I (see para. 63 and 64) also teaches that his apparatus can also include a vacuum evaporation chamber for forming a low molecular weight organic EL layer by vacuum evaporation. Yamazaki I also discloses a first processing chamber 107 for processing the substrate with an oxygen plasma (see para. 24 of Yamazaki I). Regarding the claimed "first processing chamber", it is noted that applicants have cited page 24, lines 7-19, page 27, lines 12-17 and Fig. 1 of their specification as providing support for claiming this first processing chamber. These passages describe chamber 103a of applicants' Fig. 1 as being a "preprocessing" chamber that can form an oxygen plasma. Thus, the preprocessing chamber 103a of applicants' Fig. 1 which processes a substrate with oxygen plasma is the same type of chamber as the chamber 107 of Yamazaki I which also processes a substrate with oxygen plasma. Therefore, chamber 107 of Yamazaki I is inherently "capable of generating a plasma for performing dry etching to remove a portion of the layer" as now claimed.

Yamazaki I also teaches (see para. 9, 10 and 16) that moisture has an adverse effect on organic EL materials, and must be eliminated from his manufacturing apparatus, but he doesn't discuss the use of a "second processing chamber capable of performing a vacuum heating on a plurality of substrates simultaneously". Tanabe (see Fig. 1, col. 1, lines 50-67 and col. 12, lines 28-52, for example) also teaches that moisture has an adverse effect on organic EL materials, and he teaches that an organic EL deposition apparatus should be also provided with a batch-heating pretreatment chamber to remove moisture from a plurality of substrates simultaneously. Tanabe

teaches (col. 12, lines 49-52) that "(b)y the simultaneous heat treatment of a plurality of substrates, however, it is possible to keep the overall throughput of the system high". In view of this teaching of Tanabe, it would have been obvious to one skilled in the art to provide the apparatus of Yamazaki I with a second processing chamber coupled to the transport chamber, wherein the second processing chamber is capable of performing a preheating on a plurality of substrates simultaneously.

Tanabe doesn't teach the use of a <u>vacuum</u> chamber for the preheating, but Edwards (see Figs. 1-3 and col. 1. line 5 to col. 3, line 4) makes clear that that it was well-known in the electronics manufacturing industry to vacuum preheat a substrate to remove absorbed impurities such as water vapor prior to coating and etching processes. It would have been obvious to perform the batch preheating step of Tanabe in a vacuum chamber, because Edwards teaches that batch preheating in a vacuum was well-known in the prior art to be an effective way to remove moisture.

Also, Makiguchi (see Figs. 6-9 and col. 6, line 23 to col. 8, line 40) discloses a batch vacuum heater of the same type as disclosed by Edwards, and Makiguchi teaches that batch heating can successfully be performed by using a plurality of plate heaters to heat the plurality of substrates simultaneously. It would have been obvious to use a batch heater having a plurality of plate heaters to heat the substrates in the Yamazaki I apparatus, because Makiguchi teaches that his plate heaters will successfully perform the desired function of heating a plurality of substrates simultaneously. Also, Makiguchi teaches (see Fig. 8) that the substrate supports (82) can successfully and desirably be attached directly to the panel heaters (70), wherein

the panel heaters (70) hold the plurality of plate heaters (76). It would have been obvious to use the prior art batch heating chamber of Figs. 6-9 of Makiguchi as the batch heating chamber suggested by Edwards or Tanabe, because Makiguchi teaches that his batch heating chamber design can successfully accomplish the batch heating that is desired by Edwards and Tanabe. Regarding claims 39 and 40, it is noted that Makiguchi's heating plates 76 heat the substrates by radiant heating (see col. 8, lines 37-39 of Makiguchi, for example), which is inherently infrared radiation, or infrared light, as recited in claims 39 and 40.

Burroughes has been optionally cited for his teaching (see col. 7, lines 49-59 and col. 8, lines 23-30) that a polymer EL hole transport layer that has been applied by spin coating can be desirably improved by treating it with an oxygen plasma. In view of this teaching it would have been obvious to one skilled in the art to provide the apparatus of Yamazaki I with an oxygen plasma process chamber dedicated to treating Yamazaki's spin coated hole transport layer. As noted above, the oxygen plasma processing chamber 107 of Yamazaki I is inherently "capable of generating a plasma for performing dry etching to remove a portion of the layer" and therefore meets applicants' claimed "first processing chamber". If, for argument's sake, however, chamber 107 of Yamazaki I were not considered to meet applicants' "first processing chamber" limitation, this limitation would still be obvious in view of the teachings of Burroughes.

Claims 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes

(6,558,219) for the reasons stated above, and taken in further view of Spahn (6,237,529) or Kamata (JP 11-229123). As noted above, Yamazaki I (see para. 63 and 64) specifically teaches that his apparatus can also include a chamber for forming a low molecular weight organic EL layer by vacuum evaporation, but Yamazaki I does not discuss any specific details of his organic EL evaporation source holder. Spahn and Kamata both disclose vacuum evaporation coating apparatus for forming organic EL films, wherein the apparatus includes a shutter having a hole. In Spahn, the closure plate (see element 20 of Figs. 1-6 or element 80 of Figs. 7 and 8) is a shutter having a hole. It is noted that the dictionary definition of "shutter" is "a movable cover, slide, etc. for an opening". The top plate of Spahn is a movable cover for the housing 10 or 70. Kamata also teaches the use of a shutter having an opening (see element 26A of Fig. 3, for example). It is also noted that the recited "evaporation source holder" reads on the vacuum chamber structure of Kamata, which holds the evaporation source 16 and the shutter 19. It would have been obvious to provide the apparatus of Yamazaki I with a shutter having a hole, for the reasons taught by either Spahn or Kamata.

Claims 17, 22, 24, 25, 27, 29-32, 34, 36, 37, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219) for the reasons stated above, and taken in further view of Yamamoto (6,179,923), who teaches the step of providing a film thickness monitor 15 (see Fig. 2 and col. 4, lines 28-36) adjacent to the evaporation source holder in an organic EL vacuum evaporation apparatus, and it would have been

obvious to provide the vacuum evaporation apparatus of Yamazaki I with such a monitor for accurately controlling the coating process. Yamamoto also provides moving means for his source holder as recited in claims 24, 25, 27, and 29, to improve the speed of maintenance of his apparatus. It would have been obvious to provide the apparatus of Yamazaki I with source holder moving means for that reason.

Claims 28 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219), and taken in further view of Yamamoto (6,179,923)for the reasons stated in the rejection of claims 24 and 31 above, and taken in further view of Spahn (6,237,529) or Kamata (JP 11-229123), who both disclose vacuum evaporation coating apparatus for forming organic EL films, wherein the apparatus includes a shutter having a hole. It would have been obvious to provide the apparatus of Yamazaki I with a shutter having a hole, for the reasons taught by either Spahn or Kamata.

Claims 24, 25, 31, 32, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219) for the reasons stated above, and taken in further view of Yamazaki II (2001/0006827) (see Figs. 1-6), who teaches that an organic EL layer can be efficiently deposited by vacuum evaporation by moving the evaporation source holder. It would have been obvious to modify the apparatus of Yamazaki I by providing it with an organic EL evaporation chamber of the type taught by Yamazaki II, including a

means for moving the evaporation source holder, for the desirable purpose of improving deposition efficiency as taught by Yamazaki II. Also, the Yamazaki II source holder moves in multiple scans, which requires moving in multiple directions. This movement reads on moving in an x-axis direction and a y-axis direction as recited in claim 25.

Claims 25, 26, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Tanabe (6,132,280), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219), and in view of Yamazaki II (2001/0006827) for the reasons stated in the previous paragraph, and taken in further view of Yamada (2002/0076847), Bennett (2,435,997) and/or Peng (6,641,674). Yamazaki II (see paragraph 12) teaches that the vapor deposition source holder can be moved in multiple scans to coat a large board. Yamazaki II does not state that "the evaporation source holder is rotated when switching between the x-axis direction and the y-axis direction" as recited in claim 26. Bennett also discloses a vapor deposition device in which a vapor deposition source holder is scanned in a manner analogous to that of Yamazaki II. Bennett (see Figs. 1 and 2) makes clear that such a scanned vapor deposition source is moved in a plurality of directions, and it would have been obvious to provide the apparatus of Yamazaki II with a vapor deposition source holder moving means of the type taught by Bennett, because Bennett teaches that his vapor deposition source holder moving means can successfully coat a large substrate as desired by Yamazaki II. Also, Bennett's source holder rotates when changing directions (see Figs. 2 and 4 of Bennett). Also, Yamada teaches an apparatus for vapor coating a large substrate with an organic EL layer in a

manner analogous to that of Yamazaki II. Yamada (see paragraph 105, for example) teaches in particular that an organic EL layer can successfully be deposited by using a single point source that is moved relative to the substrate. It view of this teaching by Yamada, it would have been expected and obvious to one skilled in the art that a vapor deposition source holder moving means of the type taught by Bennett could successfully be used to deposit an organic electroluminescent material coating layer of the type desired by Yamazaki II. Peng is cited because he also teaches a process of vacuum evaporation of an organic EL layer, and he also teaches that it is desirable to move the evaporation source holder. Peng provides means for moving the source in plural directions, including up, down and rotationally, which includes components of motion along plural horizontal axis directions. It also would have been obvious to provide Peng's deposition chamber and source moving means for the Yamazaki II apparatus.

Claims 1, 2, 4, 5, 38 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Yamazaki II (2001/0006827), Spahn (6,237,529) and Van Slyke (2003/0101937), and taken in further view of Eida (6,633,121), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219).

Yamazaki I (see Fig. 2) discloses an apparatus for processing a substrate comprising a transporting chamber 3; a spin coating chamber 108 that is coupled to the transporting chamber 3 through a loading chamber 201; and a second film formation chamber (110 or 111) which are vacuum evaporation coating chambers and therefore

comprise evaporation source holders, and which are coupled to the transporting chamber 103. Regarding the use of a vacuum evaporation coating chamber, it is also noted that Yamazaki I (see para. 63 and 64) specifically teaches that his apparatus can also include a chamber for forming a low molecular weight organic EL layer by vacuum evaporation. Yamazaki I also discloses a first processing chamber 107 for processing the substrate with an oxygen plasma (see para. 24 of Yamazaki I). Regarding the claimed "first processing chamber", it is noted that applicants have cited page 24, lines 7-19, page 27, lines 12-17 and Fig. 1 as describing this first processing chamber. These passages describe chamber 103a of applicants' Fig. 1 as being a "preprocessing" chamber that can form an oxygen plasma. Thus, the preprocessing chamber 103a of applicants' Fig. 1 which processes a substrate with oxygen plasma is the same type of chamber as the chamber 107 of Yamazaki I which also processes a substrate with oxygen plasma. Therefore, chamber 107 of Yamazaki I is inherently "capable of generating a plasma for performing dry etching to remove a portion of the layer" as now claimed.

Yamazaki I does not discuss specific details of the vacuum evaporation chambers 110 or 110 or the vacuum evaporation chambers for forming low molecular weight organic EL layers that he discusses in para. 63 and 64. Yamazaki II, Spahn and Van Slyke have been cited to provide a description of specific details of the vacuum evaporation chambers that are taught by Yamazaki I.

Yamazaki II (see Fig. 6, for example) discloses an apparatus comprising a loading chamber (604), a transporting chamber (601), plural film formation chambers

(606, 608, 610 and 612) and a processing chamber (605). Yamazaki II teaches that each film formation chamber includes the structure shown in Figs. 2A and 2B, which includes a mask alignment means, a substrate holding means, an evaporation source holder and a means for moving the evaporation source holder. It would have been obvious to provide the vacuum evaporation chambers of Yamazaki I with the conventional vacuum evaporation chamber equipment taught by Yamazaki II. Also, Spahn (see Figs. 1-8) and Van Slyke (see Figs. 2-8) disclose apparatus analogous to that of Yamazaki II. Spahn discloses an evaporation source that includes a container that seals an evaporation material (see Figs. 1 and 2 and the paragraph bridging cols. 4 and 5). In Spahn's container, the top plate (20 or 80) is a shutter and also has a hole in it as recited in claim 4. Van Slyke (see Figs. 7 and 8) discloses a modification of Spahn's evaporation source, and teaches that a moving means should be provided to move the source relative to the substrate to be coated. Van Slyke is cited in the rejection to make clear that Spahn's evaporation source is of a type that is intended to be moved by a moving means. It would have been obvious to use a source container of the type taught by Spahn as the evaporation source of Yamazaki I, because Spahn teaches that his evaporation source can successfully be used for forming an organic EL layer as desired by Yamazaki I.

Yamazaki I does not discuss the use of a vacuum-heating chamber having plural plate heaters for preheating a plurality of substrates.

Eida (see col. 18, lines 43-50, and col. 26, lines 19-48, for example), however, teaches that it is desirable to provide a vacuum-heating chamber as a preprocessing

chamber in an organic EL manufacturing apparatus. Eida teaches that his vacuum-heating chamber desirably removes water vapor from a substrate to be coated. Also, Edwards teaches that batch vacuum preheating for vacuum heating a plurality of substrates simultaneously is desirable for mass production. Also, Makiguchi (see Figs. 6-9 and col. 6, line 23 to col. 7, line 25) discloses a batch vacuum heater of the same type as disclosed by Edwards, and Makiguchi teaches that batch heating can successfully be performed by using a plurality of plate heaters to heat the plurality of substrates simultaneously. It would have been obvious to use a batch heater having a plurality of plate heaters to heat the substrates in Eida's apparatus, because Makiguchi teaches that his plate heaters will successfully perform the desired function of heating a plurality of substrates simultaneously. Also, Makiguchi teaches (see Fig. 8) that the substrate supports (82) can successfully and desirably be attached directly to the panel heaters (70), wherein the panel heaters (70) hold the plurality of plate heaters (76). It would have been obvious to use the prior art batch heating chamber of Figs. 6-9 of Makiguchi as the batch heating chamber suggested by Edwards or Tanabe, because Makiguchi teaches that his batch heating chamber design can successfully accomplish the batch heating that is desired by Edwards and Tanabe. Regarding new claim 43, Yamazaki teaches the use of a vacuum pump such as a turbo pump coupled to the plurality of film forming chambers.

Burroughes has been optionally cited for his teaching (see col. 7, lines 49-59 and col. 8, lines 23-30) that an polymer EL hole transport layer that has been applied by spin coating can be desirably improved by treating it with an oxygen plasma. In view of this

teaching it would have been obvious to one skilled in the art to provide the apparatus of Yamazaki I with an oxygen plasma process chamber dedicated to treating Yamazaki's spin coated hole transport layer. As noted above, the oxygen plasma processing chamber 107 of Yamazaki I is inherently "capable of generating a plasma for performing dry etching to remove a portion of the layer" and therefore meets applicants' claimed "first processing chamber". If, for argument's sake, however, chamber 107 of Yamazaki I were not considered to meet applicants' "first processing chamber" limitation, this limitation would still be obvious in view of the teachings of Burroughes.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki I (EP 1,071,117) taken in view of Yamazaki II (2001/0006827), Spahn (6,237,529) and Van Slyke (2003/0101937), and taken in further view of Eida (6,633,121), Edwards (5,259,881) and Makiguchi (5,850,071), and optionally in further view of Burroughes (6,558,219) for the reasons stated in the preceding paragraph rejection, and taken in further view of Yamada (2002/0076847), Bennett (2,435,997) and/or Peng (6,641,674). Yamazaki II (see paragraph 12) teaches that the vapor deposition source holder can be moved in multiple scans to coat a large board. Yamazaki does not state that "the evaporation source holder is rotated when switching between the x-axis direction and the y-axis direction" as recited in claim 3. Bennett also discloses a vapor deposition device in which a vapor deposition source holder is scanned in a manner analogous to that of Yamazaki II. Bennett (see Figs. 1 and 2) makes clear that such a scanned vapor deposition source is moved in a plurality of directions, and it would have been obvious to provide the apparatus of Yamazaki II with

a vapor deposition source holder moving means of the type taught by Bennett, because Bennett teaches that his vapor deposition source holder moving means can successfully coat a large substrate as desired by Yamazaki II. Also, Bennett's source holder rotates when changing directions (see Figs. 2 and 4 of Bennett). Also, Yamada teaches an apparatus for vapor coating a large substrate with an organic EL layer in a manner analogous to that of Yamazaki II. Yamada (see paragraph 105, for example) teaches in particular that an organic EL layer can successfully be deposited by using a single point source that is moved relative to the substrate. It view of this teaching by Yamada, it would have been expected and obvious to one skilled in the art that a vapor deposition source holder moving means of the type taught by Bennett could successfully be used to deposit an organic electroluminescent material coating layer of the type desired by Yamazaki II. Peng is cited because he also teaches a process of vacuum evaporation of an organic EL layer, and he also teaches that it is desirable to move the evaporation source holder. Peng provides means for moving the source in plural directions, including up, down and rotationally, which includes components of motion along plural horizontal axis directions. It also would have been obvious to provide Peng's deposition chamber and source moving means for Eida's apparatus.

Applicants' arguments regarding their newly added limitations have been considered and addressed in the new grounds of rejection stated above.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki (6,776,880) is a patent family equivalent of Yamazaki

(EP 1,071,117) cited above. Forrest is cited of interest for his teaching of a process of etching a spin on layer with an oxygen plasma.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Richard Bueker
Primary Examiner
Art Unit 1763